

REMARKS/ARGUMENTS

Applicants' representative requests a personal interview with Examiner Nwaonicha to discuss the present application prior to any further action by the Examiner. The Examiner is requested to contact Applicants' representative to schedule the interview.

Claims 1-7 and 12-18 are active in this application, claims 8-11 having been cancelled. The limitations of claims 9-11 have been added to claim 1. The level of iodine impurity at 170 ppm is supported by the Examples. The remainder of the amendment is supported by the claims as previously present. No new matter has been added by this amendment.

The present invention relates to a process for preparing a silicon compound bearing at least one fluoroalkyl group by hydrosilylation of a fluoroolefin in the presence of a Pt-containing hydrosilylation catalyst, the process comprising initially charging and heating a hydrogenchlorosilane; metering in the fluoroolefin and reacting the reaction mixture; and subsequently isolating the hydrosilylation product, and wherein the Pt-containing hydrosilylation catalyst consists of a hexachloroplatinic acid or a Pt(0) complex. Further the starting fluoroolefin is required to have impurities of an iodine content of less than 170 ppm by weight, a diene content of less than 100 ppm by weight, and a water content of less than 100 ppm by weight. Applicants have found that by performing the steps in the specific order claimed, the process provides surprising improvements in yield and particularly provides a reaction that is relatively insensitive to impurities in the fluoroolefin.

The Examiner has rejected the claims under 35 U.S.C. 103 over Jenker et al. The Examiner has maintained this rejection on the basis that the data provided in the present application are not deemed to provide an unexpected result. However, the Examiner has looked only at yield in making this determination. The Examiner has neglected to consider

the importance or significance of the improvements in yield obtained using fluoroolefins having increased levels of impurities, particularly iodine impurities.

Applicants have found that by using the present invention method, which performs the reaction steps in a different order than that taught by Jenker, one obtains a reaction that provides consistently high yields, **and is relatively insensitive to impurities in the fluoroolefin starting material.**

Applicants have provided comparative examples within the present specification showing that when the order of the present process steps is used, one obtains consistently higher yields of the final product that is relatively insensitive to the amount of impurities in the fluoroolefin, whereas when the order of addition of Jenker et al is used, the yield is lower or comparable, **but widely varies depending on the level of impurities** in the starting fluoroolefin. In particular, the present specification contains the following examples and comparative examples:

Example 1: Uses order of steps of the present invention with a flouroolefin containing **170ppm of I content**: result = 82% yield

Comparative Ex. 1: uses order of steps of Jenker using same **170ppm of I content** fluoroolefin as in Example 1: result = 2.6% yield

Example 2: uses order of steps fo the present invention with a fluorolefin containing **8 ppm of I content**: result = 94% yield

Example 3: uses order of steps of the present invention with a fluorolefin containing **6.5 ppm of I content (same as in Ex. 3 above)**: result = 93% yield

Comparative Ex. 2: uses order of steps of Jenker with fluorolefin containing **6.5 ppm of I content (same as in Ex. 3 above)**: result = 87%

Thus, it is clear that the present invention provides significant improvements in consistency of yield and the process is relatively insensitive to the level of impurities present in the fluoroolefin component, contrary to the order of steps disclosed by Jenker et al. In fact, when the method of Jenker is used with a fluoroolefin containing higher levels of iodine impurities (as in Comparative Example 1), the resulting yield is almost nothing! However, the present invention provides exceptionally higher yield, even at such high levels of iodine impurity.

Accordingly, the surprising and unexpected result of the present invention is not just that one gets high yield. Clearly Jenker gets high yield also. However, Applicants found that if one attempts to perform the process of Jenker using a fluoroolefin that has higher levels of impurities, particularly iodine impurities as commonly found in many of today's fluoroolefin starting materials, the process of Jenker results in extremely poor yield. It was only when Applicants discovered to switch the order of steps that Applicants found surprisingly that one can obtain very high yields, even with high levels of impurities, up to 170 ppm of iodine!

Jenker makes no mention regarding the purity of the starting material fluoroolefin. In fact, there was no recognition by Jenker that the reaction could be made more robust and forgiving of impurities by rearranging the order of reaction steps (or even a recognition that there was any need to make such an adjustment of the reaction steps!). It is only with Applicants discovery that by rearranging the method steps to the present invention order, one could obtain a method that was significantly more tolerant of impurities in the fluoroolefin starting material, providing comparable or better yields, with significantly better yield being obtained with the present invention when high levels of iodine are present in the fluoroolefin. One of ordinary skill would not expect this based upon Jenker and accordingly, these results are sufficient to rebut any asserted case of obviousness over Jenker and the rejection should be withdrawn.

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Applicants submit that the application is now in condition for allowance and early notification of such action is earnestly solicited.

Respectfully submitted,

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